

WebConfig

Instructions for accessing and configuring
the eBOX via the local web interface

Firmware Version 1.3.29

Content

1.	General information	4
2.	System overview and structure	5
3.	Connecting the eBOX	9
4.	Access to web interface	13
5.	Product overview	14
6.	Configuration	15
6.1.	Network settings	15
6.2.	Backend settings (OCPP)	18
6.3.	System settings	21
6.4.	Charge point settings	24
6.4.1.	General information	24
6.4.2.	Active charging session	25
6.4.3.	Authentication	26
6.5.	Support	27
6.5.1.	Logging	27
6.5.2.	Support package	28

3 Compleo eBOX WebConfig

Technical changes and mistakes excepted. Technical changes and changes of data or described procedures may occur without updating this document.

1. General information

About this document

This manual contains information about the connection to the local web interface (WebConfig) of Compleo eBOX smart, Compleo eBOX professional and Compleo eBOX touch. The purpose of this document is to describe how to properly configure and operate the advanced features of the WebConfig platform. This includes the implementation of important settings for optimal operation.

Please note

Make sure that the eBOX is set up and wired correctly. You will find a detailed assembly description in the user manual you received with your eBOX.

Preparations

To connect to the WebConfig of the eBOX, you need a working laptop and a LAN cable. Make sure you have the PUK of the eBOX ready to access the web interface. You can find the PUK on the last page of the user manual you received with your eBOX

2. System overview and structure



Before mounting the eBOX, make sure that the eCLICK is not connected to power.

To access the eBOX web interface, the eBOX must be properly connected to the computer.

For this to succeed, the entire system must be set up and wired as shown in **Figure 1**.

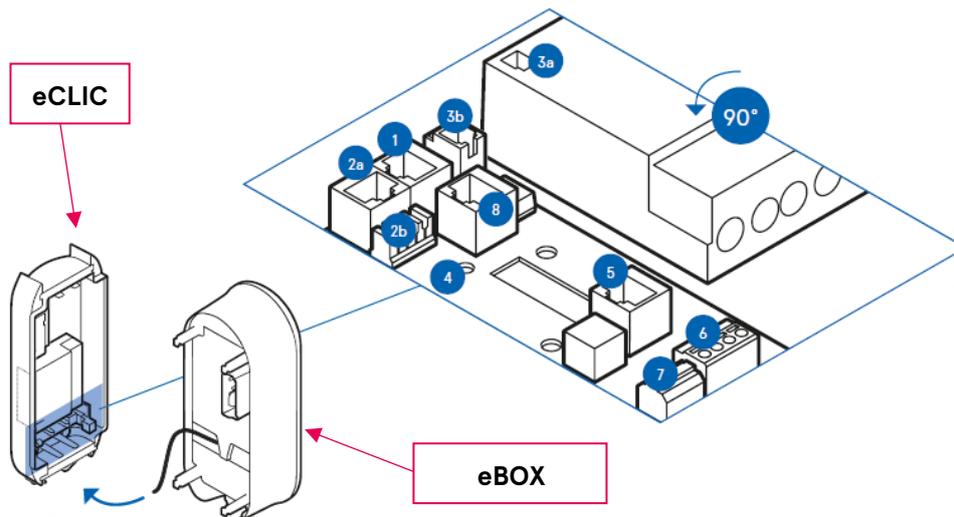


Figure 1: System overview

Take the eBOX and identify the connection points (colored red) on its back. Connect the black ribbon data cable of the eBOX to the port "5 Expansion Terminal".

Description of the individual elements from **Fehler! Verweisquelle konnte nicht gefunden werden.**:

- 1 LAN 1RJ45 (communication to eBOX)
- 2a LAN 2RJ45 (to internet router)
- 2b LAN 2 LSA+ (to internet router)
- 3a Output eSMARTMETER (optional)
- 3b Input eSMARTMETER (optional)
- 4 Position cable clamps for S/FTP cable
- 5 RJ50 Terminal (communication eBOX)
- 6 Grid control box connection
- 7 Shunt release connection

8 LAN 1 RJ45 (deactivated)

All communication cables (e.g. LAN cable, etc) are connected to the interface board (See **Figure 2**).

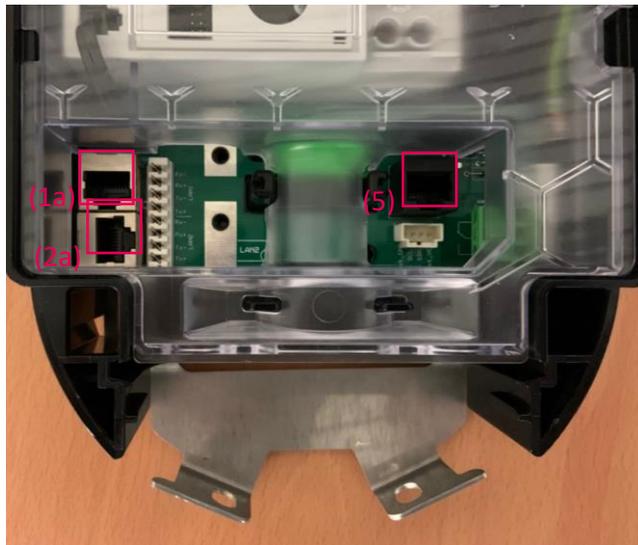


Figure 2: eCLICK Interface board

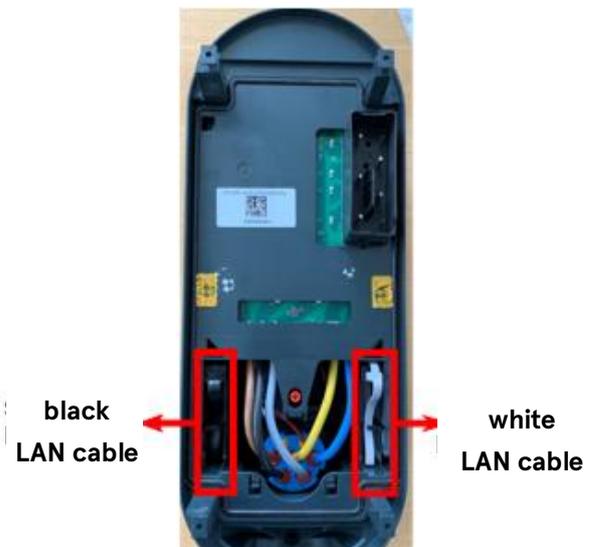


Figure 3: eBOX cable arrangement

Before plugging the eBOX into the eCLICK, several components must be connected with various cables. First the LAN cable of the eBOX (black LAN cable, see **Fehler! Verweisquelle konnte nicht gefunden werden.**) is connected to the LAN RJ50 Terminal (5) of the eCLICK. Then connect the eSMARTMETER (3a) to the port (3b) of the eCLICK. Then connect the white LAN cable of the eBOX to the LAN port 1 of the eCLICK.

Please note:

Port 2a is for the LAN cable (yellow cable, **Figure 4**), which allows you to connect your computer to the eBOX.

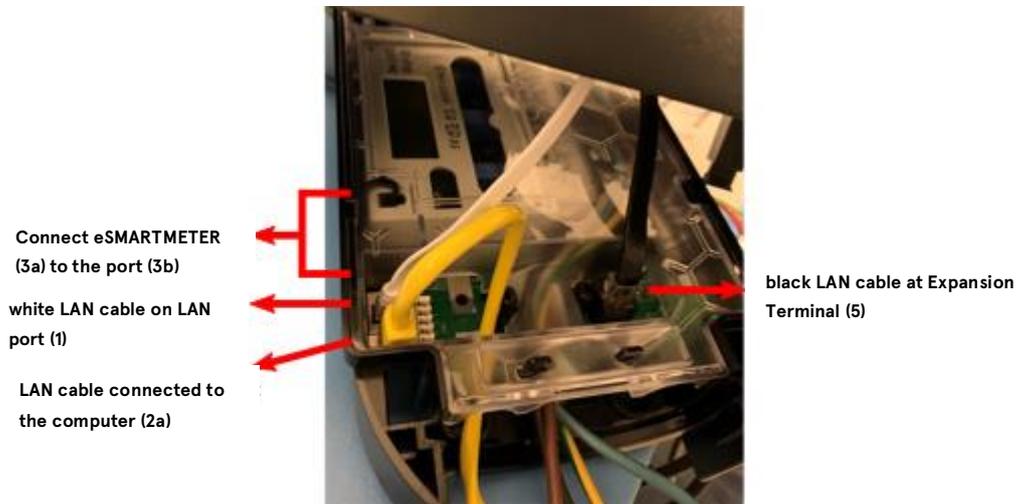


Figure 4: Cable wiring eCLICK und eBOX

After successful cabling (**Figure 4**), the eBOX can be plugged into the eCLICK.

To do this, follow the installation steps 1 to 3:

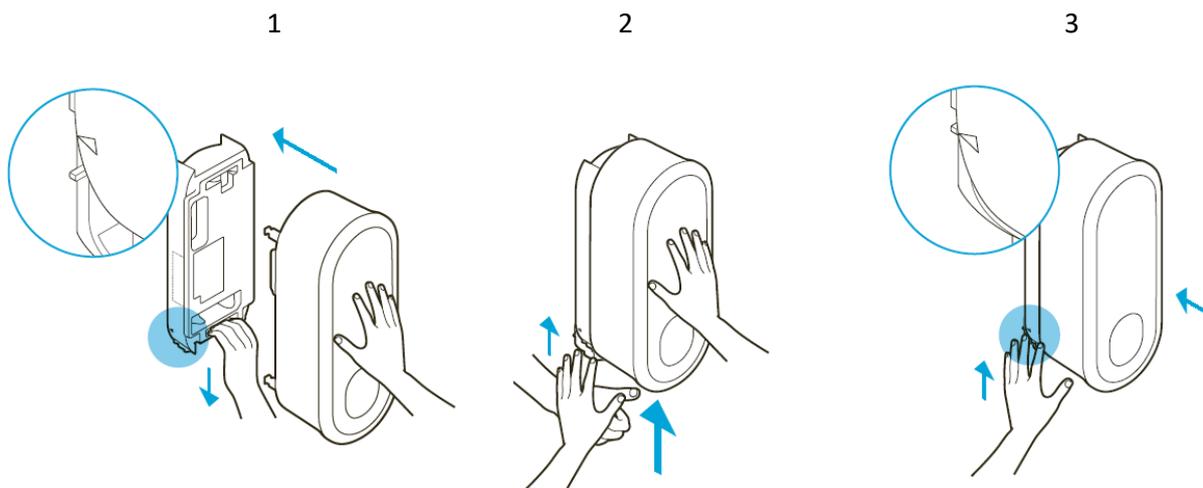


Figure 5: Mounting description

- 1** Place the eBOX evenly on the eCLICK and push the eBOX until it stops.

- 2** Hold the eBOX while pulling down the locking bar on the eCLICK. Now release the locking bar. As soon as the locking bar is pulled up, press the eBOX by pressing the eCLICK.

- 3** If necessary, press the locking bar until it is in its original position again. Markings for orientation are visible on the eCLICK locking bar. Check whether the locking bar is fully inserted. The triangular recesses on the left and right of the locking bar must be flush with the eCLICK housing.

Now the voltage can be switched on to the eCLICK. In the next step you can connect your computer to the eBOX via a LAN cable.

3. Connecting the eBOX

To establish communication between your local computer and an eBOX, the network and Ethernet settings of the computer used must be correctly adjusted. Follow the following steps depending on the operating system:

Windows

Step 1: Open network settings

Open Windows start menu → Settings → „Network & Internet“ (Figure 6)

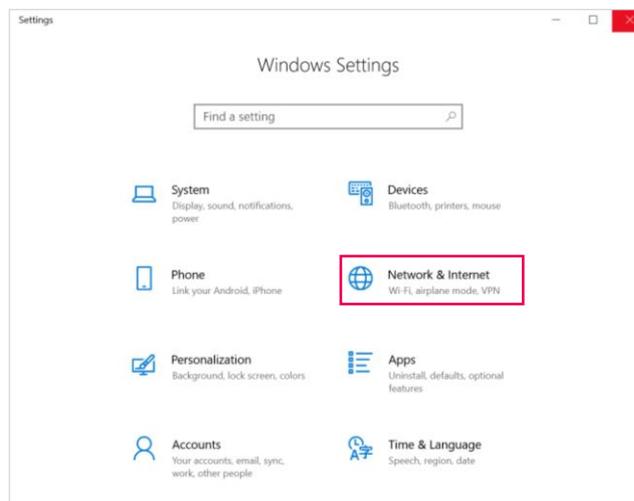


Figure 6: Windows settings

Step 2: Select adapter options

Choose option „Change adapter options“ (Figure 7)

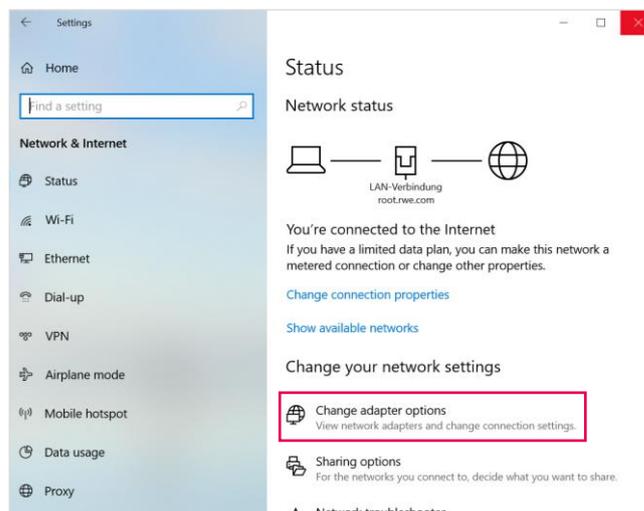


Figure 7: Select adapter options

Step 3: Change adapter options

Right-click on the network adapter you are using and click on "Properties" (Figure 8).

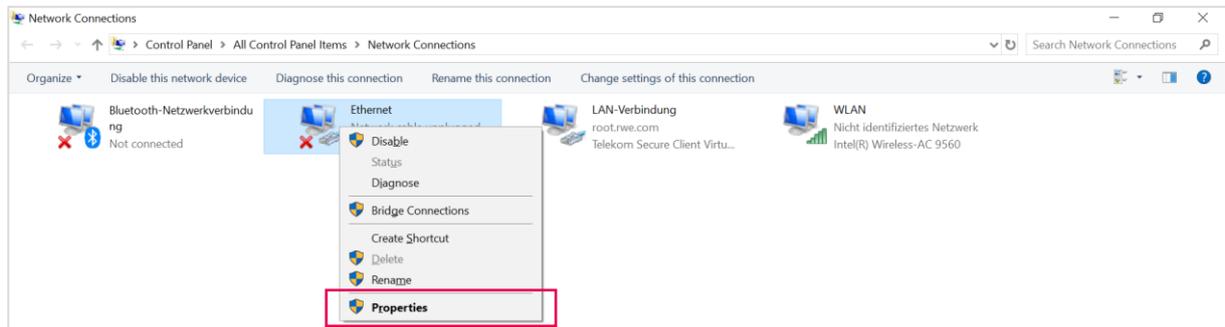


Figure 8: Adapter options

Step 4: Change setting of Internet Protocol

Select the setting option "Internet Protocol, Version 4 (TCP/IPv4)" and click "Properties" item (Figure 9).

Then select "Advanced..." in the new window.

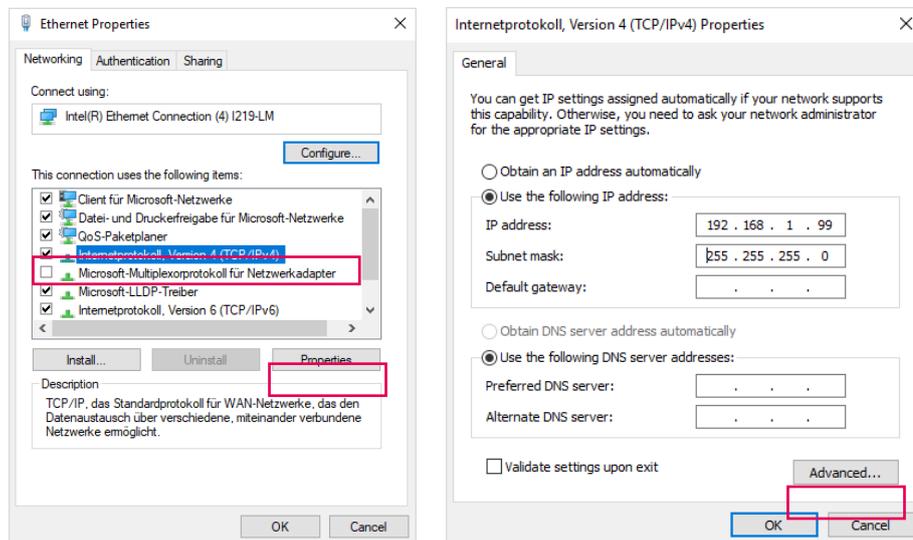


Figure 9: Internet protocol

Step 5: Change setting of Internet Protocol

Select the "Add..." option and enter the following information:

IP address 172.016.000.002

Subnet mask 255.255.255.000

Please note: The IP address 172.016.000.001 must not be used!

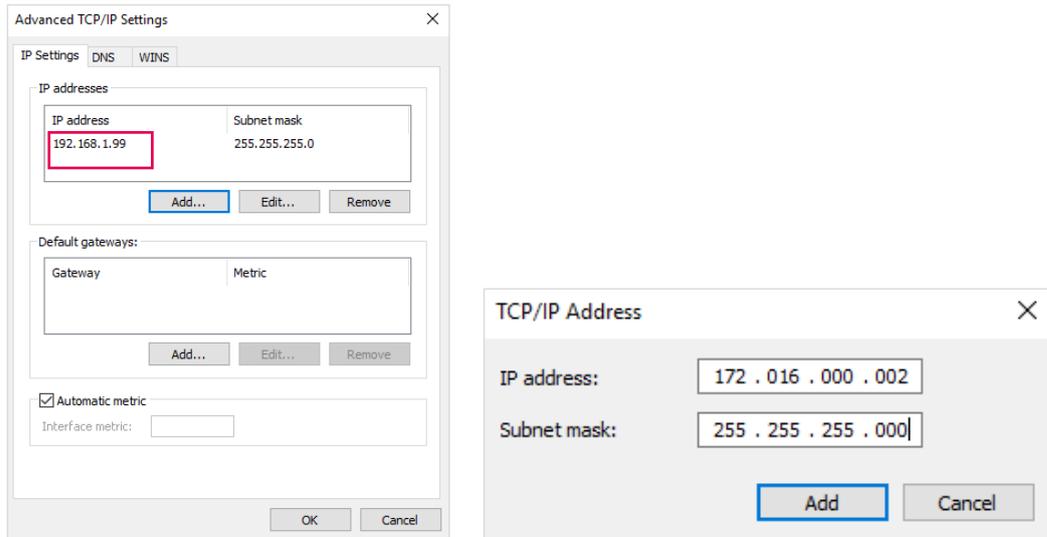


Figure 10: New IP address

MacOS

Step 1: Open network settings

Open System Preferences and click on "Network" (Figure 11).

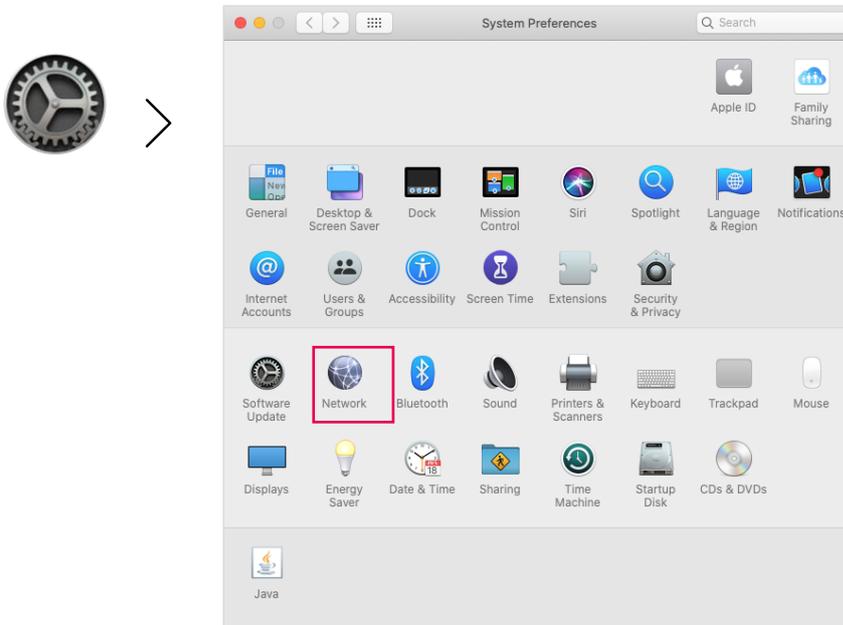
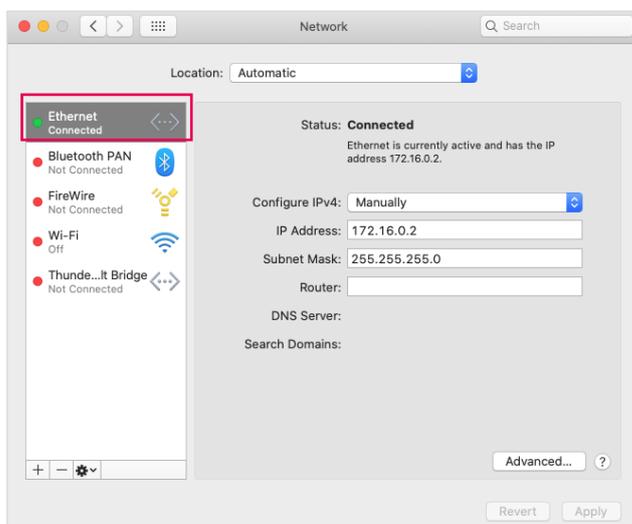


Figure 11: MacOS System Preferences

Step 2: Configure IP address

Select "Ethernet" in the left selection. Make sure that the indicator is green and "Connected" is displayed. Then set "Configure IPv4" to "Manually" and enter "172.16.0.2" in the "IP Address" field. For "Subnet Mask" enter "255.255.255.0". Confirm the adjustment with "Apply".



Settings:

- Manually
- 172.16.0.2
- 255.255.255.0

Figure 12: Network settings

4. Access to web interface

Once the eBOX is properly set up and wired and you have successfully configured the network settings on your computer. You can now power the eBOX.

Please note

that it can take up to 5 minutes until the eBOX is fully booted. If this is not the case, please check if the eBOX is properly snapped into the eCLICK and all cables are plugged in correctly. For more details and troubleshooting, please refer to the supplied user manual.

Now open your web browser (Firefox, Chrome, Safari, ...) and go to the website of the local web interface. The web address is:

<http://172.16.0.1/>

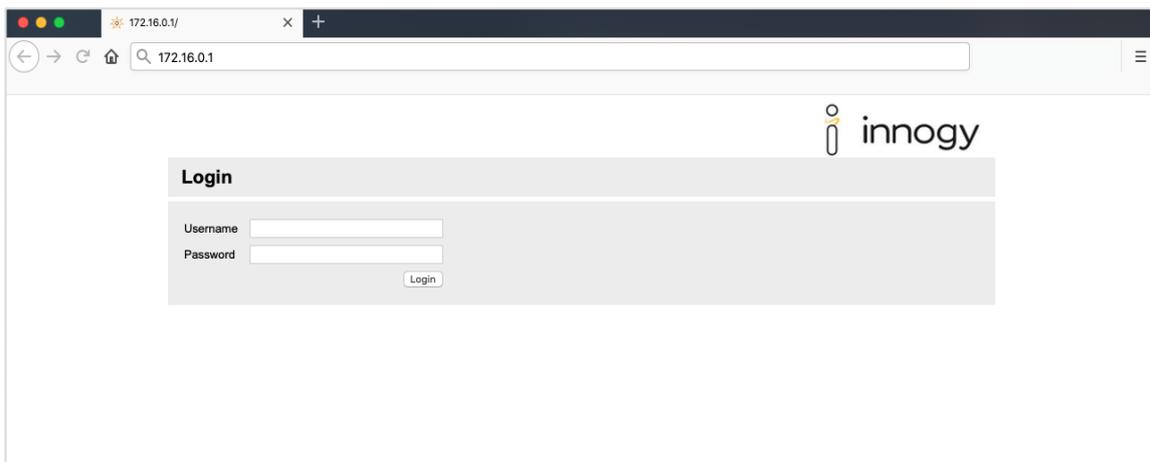


Figure 13: Open up WebConfig

Login information for WebConfig:

User name: admin

Password: <PUK>

To log in to WebConfig, you need the PUK of your eBOX. You can find it on the back of the supplied user manual. If you have lost your PUK, please contact support. The default username is "admin".

5. Product overview

After a successful login, the WebConfig overview page is displayed. From here you can navigate to the different functions via the menu (1).

Available languages are English and German.

(1)

The screenshot shows the WebConfig landing page. On the left is a navigation menu with the following items: ECU (highlighted), Overview, Webinterface, ACCU, Common, Time, Logging, Bluetooth, OCPP, Update, Network, Periphery, LDP1, and System. The main content area is titled 'Overview' and contains the following sections:

Overview chargepoints:

Periphery	LDP1
Firmware Version:	---
Type:	EDL40++
Ownership number:	1EBZ0300038514
PLC FW Version QCA:	MAC-7000-v1.2.1-00-CS.nvm

[more](#)

Session

Session status:	inactive
Session-ID:	---
Load session:	default/None
Contract ID:	---
Resistor in charging cable	no cable connected
PWM state:	E
Current duty cycle:	0% (0A)
Interlock:	opend
Contactor:	opend

[more](#)

Overview system:

System

Firmware version App:	1.3.55
Hardware features:	5B5B
Hardware version:	6
Serial number:	LP00014C

[more](#)

LSX state

State	online
Interface IP address	10.253.156.25
Provider	26202
Signal	2

[more](#)

Periphery

LG2LAN Device local FW Version:	---
LG2LAN Device extern FW Version:	---

[more](#)

Figure 14: Landing Page

Notice:

- Please note that all adjustments to the eBOX via WebConfig require a restart of the eBOX to apply the settings.
- Please use only the functions and settings listed here in the documentation. The current version of the WebConfig serves primarily for internal development and will therefore be fundamentally redesigned and further developed.

6. Configuration

6.1. Network settings

Network → „Interface“

To adjust the network settings, first navigate to the menu item "Network" and select "Interface" to choose the connection type. Use the dropdown at "Interface" to switch between LAN (net2), WiFi (wlan) or SIM card (lte). After selecting the interface, activate the WAN by checking "active" (**Figure 15**).

The screenshot shows the 'Interface' configuration page. On the left is a navigation menu with items: ECU, Network, General, Interface, Status, Periphery, LDP1, and System. The 'Interface' section is active. Under 'WAN', there is a checkbox for 'WAN active' which is checked, and a dropdown menu for 'Interface' currently showing 'lte'. Below this is the 'Ethernet' section, which is divided into 'Network 1 Settings' and 'Network 2 Settings'. In 'Network 1 Settings', 'Network active' and 'Static IP active' are checked, with a static IP address of 172.16.0.1 and a netmask of 24. In 'Network 2 Settings', 'Static IP active' is checked, but 'Network active' is not.

Figure 15: WAN settings

1 LAN (net2):

Select "net2" for the connection type LAN. Connect the eBOX to your network via LAN cable and confirm with "OK".

Scroll below to find the section "Ethernet → Network 1 Settings". Check the checkbox "Network active" to use Network 1 for communication. In case you're using a static IP address, select the checkbox "Static IP active" and enter the static IP address in the

following field. For using dynamically obtained IP address, leave the checkbox "Static IP active" unchecked.

2 WLAN (wlan):

Select "wlan" for the connection type WLAN (**Figure 16**).

WiFi

Wifi Mode

WiFi Client Settings

SSID

Pre shared key

Start DHCP client

Static IP active

Static IP address

Netmask

LTE

Username Password

Access point name PIN

Log into the strongest net automatically

Preferred provider

Only log into this provider

Save settings

Figure 16: WLAN settings

Enter the SSID (name of your wireless network) and password to connect the eBOX via wireless. In case you're using a static IP address, select the checkbox "Static IP active" and enter the static IP address in the following field. For using dynamically obtained IP address, leave the checkbox "Static IP active" unchecked. Confirm your entry with "OK" at Apply settings.

3 SIM card (lte):

Select "lte" for the connection type SIM card (**Figure 15**). On the same page below, adjust the corresponding APN (Access Point Name) settings (**Figure 16**). Enter your user name, password and APN.

By default, the eBOX automatically dials into the most available network. However, under certain circumstances it may happen that the preferred use of a provider allows a more stable connection. You can activate the field below and enter the desired provider ID in the field.

Please note

that the function "Log in exclusively with this provider" does not work properly at the moment and can lead to problems. We advise against using this function and expect a solution with upcoming updates.

After completing the network configuration, you can check the network connection under Router WAN "Status" (**Figure 17**).

The screenshot shows the 'Status' page in the eBOX WebConfig interface. The left sidebar has the following tabs: ECU, Network (highlighted in orange), General, Interface, Status, Periphery, LDP1, and System. The main content area is titled 'Status' and contains two sections: 'WAN status' and 'LTE2 status'.

WAN status

Name of WAN chain	wan1
State	online
Online for	11 h 3 min
Interface	lte2
Interface IP address	10.253.156.25

LTE2 status

State	Online
Provider	26202
Network registration state	Registered and roaming
Used net	LTE
Signal	2
Cell ID	13EBD03
Location ID	200C
SMS center	+316540967011
SIM state	SIM card inserted and ready
PIN state	PIN installed and accepted
Remaining PIN entry tries	3
IMSI	204047125343341
USIM	89314404000792780125
IMEI	353251085929109

At the bottom of the status section, there is a 'Refresh' button.

Figure 17: Netzwerkstatus

6.2. Backend settings (OCPP)



To establish a backend connection via OCPP, the firmware of the eBOX must be 1.1.16 or higher. Read in chapter 6.3.2 how to perform a firmware update

ECU → „ACCU“ (Figure 18)

To establish a connection to a backend via OCPP, you must first adjust the operating mode and the backend protocol.

Navigate to the menu item "ECU" and select the tab "ACCU". Then set the field "Operation Mode" to "b2b" and change the backend protocol to "OCPP-generic".

ECU	
Overview	
Webinterface	
ACCU	
Common	
Time	
Logging	
Bluetooth	
OCPP	
Update	
Network	
Periphery	
LDP1	
System	

ACCU	
Operation mode	b2b ▼
Backend protocol	ocpp_generic ▼
ACCU type	2
PUK	seish3oh
Commissioning interface	bluetooth ▼
<input type="button" value="OK"/> Save settings	

Figure 18: eBOX Operating mode

ECU → „OCPP“ (Figure 19)

Then switch to the "OCPP" tab. Here you have the possibility to enter the Chargebox ID (1), the Endpoint URL (2), the user name and password (SIM) (3). These parameters form the basis for a successful connection to any OCPP-based CPO backend.

Please note:

Please do not change the homebox parameters, as they have no effect on the connection to your backend.

ECU	
Overview	
Webinterface	
ACCU	
Common	
Time	
Logging	
Bluetooth	
OCPP	
Update	
Network	
Periphery	
LDP1	
System	

OCPP	
----- ocpp 1.6/2.0 general parameters -----	
ChargeBox Identity:	LP00014C (1)
Server certificate validation:	<input type="checkbox"/>
End point URI:	ws://10.185.70.60:2302/ocpp16/ocppj16 (2)
TCP connect timeout [s]:	10
TCP connect interval [min]:	1
OCPP confirmation response timeout [s]:	15
Default heartbeat interval [s]:	240
Usage of relative meter values:	<input checked="" type="checkbox"/>
Username	LP00014C (3)
Password	*****
Access point activation timeout [min]	15
Wlan client connection check timeout [min]	5
Timestamp in milliseconds precision	<input type="checkbox"/>
----- homebox parameter -----	
OCPP Key for dev:	5GUCxedQiB6mtXxnc+hq0GsHYPMCw
Subject common name:	*****
Subject organization:	*****
Subject organizational unit:	*****
Subject country:	*****
Issuer common name:	*****
Issuer organization:	*****
Issuer organizational unit:	*****
Issuer country:	*****
<input type="button" value="OK"/> Save settings	
<input type="button" value="Delete OCPP Message Queue"/>	

Figure 19: OCPP settings

Another alternative to change the backend parameters is to upload a configuration file.

The eBOX configuration file is a text file and can be downloaded under "System"

"Configuration" (**Figure 20**). You have the possibility to customize the text document and the different parameters and then upload it again.

Please note

that with the eBOX configuration file you can change all parameters of the eBOX.



Figure 20: Configuration file

Proceed as follows to adjust the backend settings via the configuration file:

- 1 Download the configuration file and open it with the text editor of your choice (Figure 21).
- 2 Adjust the relevant parameters for the backend connection.
- 3 Save the configuration file and upload the text file again via the "Select file" button during upload. Confirm your upload with "OK".
- 4 Restart the eBOX to make the settings effective.

```

1 #Date: 2020:06:12 12:39:48
2 #Firmware: 1.0.22
3
4 ecu.webinterface.username=innogy
5 ecu.webinterface.password=****
6 ecu.webinterface.port=80
7 ecu.webinterface.default_language=de
8 ecu.webinterface.login_timeout=4
9 ecu.webinterface.session_timeout=15
10 ecu.accu.mode=b2c
11 ecu.accu.accu_type=2
12 ecu.accu.puk=Je2EIn3n
13 ecu.accu.backend_protocol=homebox
14 ecu.common.serverid=079C30650035D
15 ecu.common.serialnumber=LE00596D
16 ecu.common.box_name=eBox596D
17 ecu.time.ntp_active=0
18 ecu.time.ntp_sync_interval=1
19 ecu.time.timezone=Berlin
20 ecu.time.ntp_peer_1=ptbtme1.ptb.de
21 ecu.time.ntp_peer_2=ptbtme2.ptb.de
22 ecu.time.ntp_peer_3=ptbtme2.ptb.de
23 ecu.time.ntp_peer_4=ptbtme1.ptb.de
24 ecu.logging.live_log=1
25 ecu.logging.server_ip=172.16.0.2
26 ecu.logging.server_port=20149
27 ecu.logging.level_failure=1
28 ecu.logging.level_error=1
29 ecu.logging.level_warning=1
30 ecu.logging.level_info=1
31 ecu.logging.level_milestone=1
32 ecu.logging.level_action=1
33 ecu.logging.level_debug=1
34 ecu.logging.level_communication=1
35 ecu.lg2wan.push_active=0
36 ecu.lg2wan.push_target=10.104.4.131
37 ecu.lg2wan.push_port=2300
38 ecu.lg2wan.push_max_idle=5
39 ecu.lg2wan.push_retry_timeout=60
40 ecu.lg2wan.pull_port=2310
41 ecu.lg2wan.pull_interface=lan1

```

Figure 21: Textfile

6.3. System settings

System → „System data“ (Figure 22)

Under the item System Data you will first have an overview of the most important information about the status of your eBOX (Figure 22). The data shows the current firmware version of the eBOX, serial number or picking status.

System data	
ACCU firmware version:	1.3.29
Firmware version App:	1.3.55
Firmware version router:	4.3
Firmware version UI-Board:	0.1.17
Firmware version HPS-Board:	APP-1.2.2-EU-S
Hardware features:	5B5B
Build date:	2021-06-17 15:16:28
Git-Hash:	751577151eedb07e812fa56b7015ca92b602545d
MAC0:	9C:30:66:01:88:4C
MAC1:	9C:30:66:01:C2:79
Hardware version:	6
Serial number:	LP00014C
Production date:	202007010944
Production number:	D2
Commissioning state:	ready for commissioning

Refresh

Figure 22: System data

6.3.1. Configuration file

System → „Configuration“

For diagnostic purposes it may be necessary to download the current configuration of a load box. The procedure for downloading and adapting the file was already explained in detail in Chapter 6.2.

In addition to the backend settings, you can set all parameters of the eBOX here. Please note that uploading an incorrectly configured file can cause the eBOX to malfunction.

If this happens and you want to restore the eBOX to factory settings, follow the steps in chapter 6.3.3.

6.3.2. Firmware Update

ECU → „Update“ (Figure 23)

You can also manually install an update from a local source. Select the appropriate file under "Update via local sources" and confirm with "Upload FW". Then follow the installation steps.

After successful update your eBOX will restart automatically.



Figure 23: Firmware Updates

6.3.3. Default settings

System → „Reset“ (Figure 24)

You can reset your eBOX at any time and reset it to factory defaults. Navigate to "System" and select the tab "Reset".

You can reset the eBOX with “APP Reset”

Reset

App/Router restart

App restart
 Router restart

Restart now

24h Reboot

Reboot mode:

hh mm

Reboot time:

Daily reboot: 00:13 local time

Save settings

APP Reset

Reset App Defaults

Figure 24: eBOX Reset

6.4. Charge point settings

The WebConfig offers you different functions to make load point specific settings. These include the operating mode, number of phases, information on active charging processes and the configuration of the authentication on the eBOX.

6.4.1. General information

LDP1 → „General“ (Figure 25)

Under the "General" item in the LDP1 menu, you can configure the maximum current and the number of phases connected to the eBOX.

Please note

that the maximum current cannot exceed 32A.

Common	
LDP server ID	059C30660113F2
Max. current [A] of charge point's	16
Resistor of fix attached cable:	100 220 680 1500
Number of phases:	1
Open Interlock after expiring max load time	<input type="checkbox"/>
SLAC attenuation profile	00 00
Phase setup L1	0
Phase setup L2	0
Phase setup L3	0
OK Save settings	

Figure 25: Charge point settings

LDP1 → General → „Operational readiness“

Under “Operational readiness” you can change the status of the eBOX to "ready for operation" or "out of operation”.

6.4.2. Active charging session

LDP1 → „Session“ (Figure 26)

If a charging process is active, this view offers you all important key figures at a glance.

You also have the possibility to download log files. The last 30 loading processes are listed there.

With "Charge Debug" further parameters and their values are available for analysis.

The screenshot shows the 'Session' view in the Compleo eBOX WebConfig interface. The sidebar menu on the left includes ECU, Network, Periphery, LDP1 (selected), Session, Charge debug, Common, Authentication, Meter, RFID, Loadmanagement, Remote control, and System. The main content area displays the following session details:

Chargepoint number:	---
Session status:	inactive
Load session:	default/None
Session start time (local time):	---
Session duration [hours:min:sec]:	---
Contract ID:	---
RFID UID:	---
Reservation active:	no
Pre-authentication active:	no
Resistor in charging cable	no cable connected
PWM state:	E
Current duty cycle:	0% (0A)
Interlock:	opend
Contactor:	opend
State dynamic load adaption:	inactive
State modbus load adaption:	inactive
State load adaption due to missing backend:	inactive
Status of local load adaption:	inactive
State load adaption smart charging:	inactive
State TAB load adaption:	inactive
Session start Meter reading:	---
Meter reading:	1450.65188213 kWh
Current power of the meter:	0 W
Statusword charge point:	0x001800038000400c

Below the table is a 'Refresh' button. Underneath is a section titled 'Possible authentication overview' with the following list:

- Remote
- LG2LAN
- RFID
- RFID+

At the bottom, there is a 'Log:' section with three download links:

- Download of latest 30 charge session
- Download of the last 30 secure_SDRs
- Download of the last 30 OCMF files

Figure 26: Active charging process

6.4.3. Authentication

LDP1 → „Authentication“ (Figure 27)

Control the different authentication types that should be active on your eBOX and enable/disable the fair mode under the tab "Authentication".

No authentication takes place in trade fair mode. This means that the eBOX loads as soon as a vehicle is connected. You activate the trade show mode by setting the field "Authentication" to "without".

The screenshot shows the 'Authentication' configuration page in the eBOX WebConfig. The left sidebar contains a menu with the following items: ECU, Network, Periphery, LDP1 (selected), Session, Common, Authentication (highlighted), Whitelists, Meter, RFID, Loadmanagement, Remote control, and System. The main content area is titled 'Authentication' and includes the following settings:

- Mode 3 / BC
- 15118
- CID ICON check
- Local authorize offline (OCPP16)
- Local pre authorize (OCPP16)
- Authorization cache enabled (OCPP 1.6J)
- Local authorization list enabled (OCPP 1.6J)
- Local authorization list max length (OCPP 1.6J)
- Authentication: without, with
- Remote
- ID Box
- LG2LAN
- RFID
- RFID+
- Pnc
- Fair-Mode CID: zero
- Default authentication if no backend: 32 [A]

At the bottom of the page, there is an 'OK' button and a 'Save settings' button.

Figure 27: Authentication

6.5. Support

6.5.1. Logging

ECU → „Logging“ (Figure 28)

To analyze the behavior of the eBOX and possible errors, you can configure logging under the menu item "ECU" and the tab "Logging". One level down under "Download" you can download the logging file (Figure 29).

For support requests it is helpful to send the log file.



Figure 28: Logging



Figure 29: Log-File Download

6.5.2. Support package

System → „Support“ (Figure 30)

In case of support Compleo will request a support package to analyze the error.

This support package is a binary file with extensive information about configuration and log files.

You can download this support package under the menu item "System" and the tab "Support" to forward it to Compleo.



Figure 30: Support package

Compleo Charging Solutions GmbH & Co. KG
Ezzestraße 8
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www.compleo-cs.com

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